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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,489	04/12/2004	Hongjian Gan	JCLA12709	4944

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J C PATENTS, INC.
4 VENTURE, SUITE 250
IRVINE, CA 92618

EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2836

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/823,489

Applicant(s)

GAN ET AL.

Examiner

Michael Rutland-Wallis

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21 is/are allowed.
- 6) ☒ Claim(s) 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 02/16/2007, with respect to claims 1-21 have been fully considered and are persuasive. The previous rejection has been withdrawn.

Applicant's arguments with respect to claim 22-24 have been considered but are not persuasive. Applicant's arguments are directed to limitations contained within claims 1, 15 and 18, such as controlling delay time between the timing of input capacitor of front-end converter and timing of the first and second buck converter. As such limitations are absent in claims 22-24 the previous rejection is maintained.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *AV45C Quarter-Brick Series Technical Reference Notes* details the exemplary components contained within the DC/DC converter shown in Ostojic.

Claim Objections

Claim 1 is objected to because of the following informalities: line 3 "both of which cascade a first output capacitor" should be changed to "both of which cascade from a first output capacitor".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostojic (U.S. Pat. No. 6,771,052) in view of Giannopoulos et al. (U.S. Pat. No. 6,549,432)

With respect to claim 22 Ostojic teaches a power supply with multiple outputs (see Fig. 2, items 116 and 132), comprising: a converter (DC/DC converter time 102); and a buck converter (item 108), directly cascading the output (item 104) of the converter, wherein the buck converter is controlled by a buck switch (item 106). Ostojic further teaches the converter used is a controlled DC/DC converter (for example a ASTEC AV45C, see col. 3 line 36) while the details of the converter are not shown in Ostojic such a converter described typically contains synchronous rectification circuitry and capacitor connected at the output (see page 2 col. 1 and page 3 of the technical reference notes describing the converter used by Ostojic and describing the specifics of such a converter and typical applications). Ostojic does not teach the switching sequence claimed. Giannopoulos teaches a buck switch which begins to turn on synchronously with the input voltage from the rectifier at the time converter turns off and turn off at the time before the time when the converter turns on (see timing diagram in

Fig. 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of a first output capacitor and controller seen in Giannopoulos to synchronously control the time delay between the front-end converter and a pulse supplied to a first and second converter arrangement in order to provide a soft switching and input switch (Giannopoulos col. 2 lines 30-35) control the time period and voltage and current level supplied to converters.

With respect to claim 23 Ostojic as modified by Giannopoulos teach the converter is a flyback converter.

With respect to claim 24 Ostojic as modified by Giannopoulos teach the rectifier is a diode rectifier or a synchronous rectifier.

Allowable Subject Matter

Claims 1-21 are allowed. The following is an examiner's statement of reasons for allowance: Ostojic as modified by Giannopoulos teaches the device claimed in claims 1, 15 and 18 however do not teach the further limitation of a time synchronous control circuit for controlling the time delay between the timing of input capacitor beginning to have a pulse of first output capacitor of the front-end converter and timing of the first and second buck converter. At least this further limitation to claims 1, 15 and 18 is not taught or rendered obvious by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2836

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW



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